

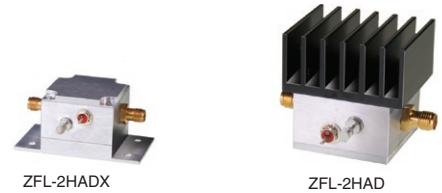
Coaxial Amplifier

ZFL-2HAD

50Ω High Isolation 50 to 1000 MHz

Features

- wideband, 50 to 1000 MHz
- active directivity (isolation-gain), 30 dB typ. at 50-500 MHz



CASE STYLE: SS98

Connectors	Model	Price	Qty.
SMA	ZFL-2HAD	\$264.95 ea.	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)
SMA	ZFL-2HADX	\$254.95 ea.	(1-9)

Applications

- VHF/UHF
- cellular
- receivers
- two-tone, 3rd order IM testing

Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)			MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1) Typ.		ACTIVE DIRECTIVITY ¹ (dB)				DC POWER	
	f _L	f _U	Min.	m	Flatness Max. Total Range	L	U	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	L		U		Volt (V) Nom.	Current (mA) Max.
ZFL-2HAD	50	1000	11	±0.7	±1.0	+20	+20	+15	5.0	+33	2.0	2.0	30	20	21	15	15	110
ZFL-2HADX*	50	1000	11	±0.7	±1.0	+20	+20	+15	5.0	+33	2.0	2.0	30	20	21	15	15	110

* Heat sink not included

L= low range (f_L to f_U/2) m= mid range (2f_L to f_U/2) U= upper range (f_U/2 to f_U)

¹Active Directivity(dB)= Isolation (dB)- Gain (dB)

Open load is not recommended, potentially can cause damage. With no load derate max input power by 20 dB

To order without heat sink, add suffix X to model number. Alternative heat sinking and heat removal must be provided by the user to limit maximum temperature to 71°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 15°C/W Max.

Maximum Ratings

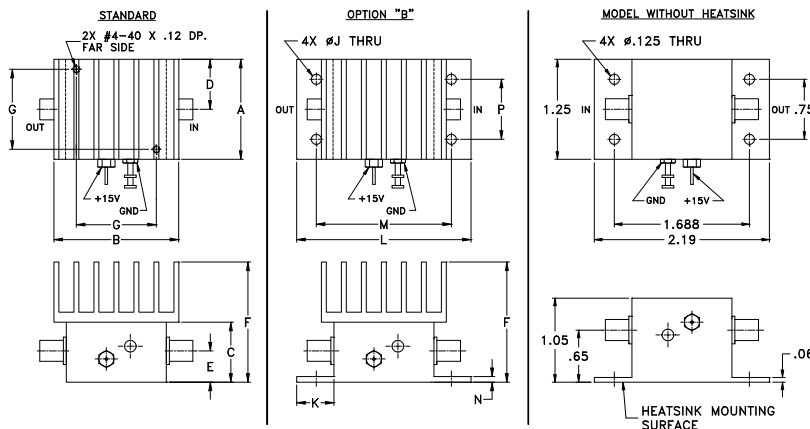
Operating Temperature -20°C to 71°C

Storage Temperature -55°C to 100°C

DC Voltage +17V Max.

Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt*
1.25	1.56	.75	.63	.39	1.50	1.000	--	.125	.46	2.19	1.688	.06	.750	grams
31.75	39.62	19.05	16.00	9.91	38.10	25.40	--	3.18	11.68	55.63	42.88	1.52	19.05	85.0

*70 grams with heat sink

Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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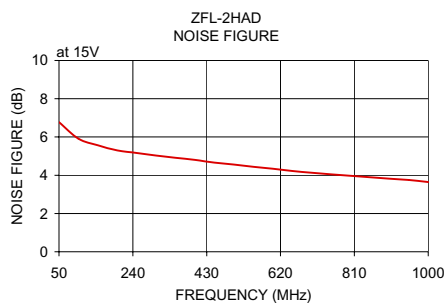
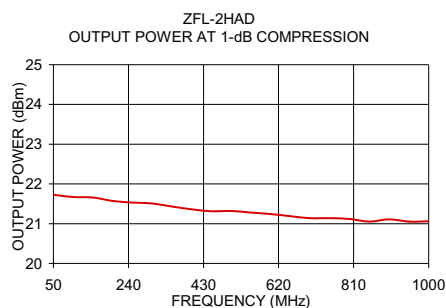
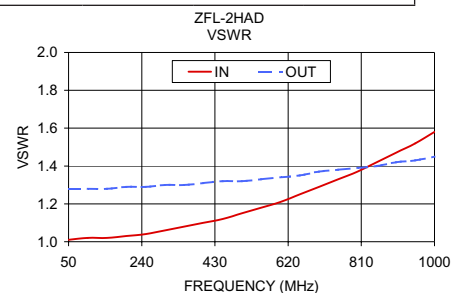
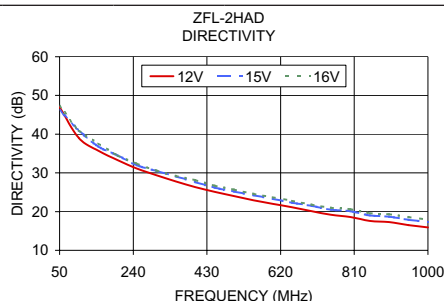
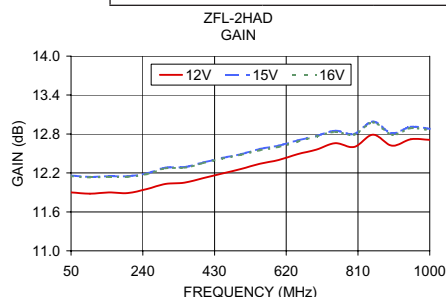
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Typical Performance Data/Curves

ZFL-2HAD

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	12V	15V	16V	12V	15V	16V	IN	OUT		
50.00	11.90	12.16	12.15	47.00	46.20	47.30	1.01	1.28	6.78	21.73
100.00	11.88	12.14	12.13	39.00	41.00	41.00	1.02	1.28	5.91	21.67
150.00	11.90	12.15	12.14	35.70	36.80	37.60	1.02	1.28	5.57	21.66
200.00	11.89	12.15	12.14	33.30	34.50	34.50	1.03	1.29	5.30	21.57
250.00	11.95	12.19	12.18	31.10	32.00	32.40	1.04	1.29	5.16	21.53
300.00	12.03	12.28	12.27	29.40	30.50	30.60	1.06	1.30	5.03	21.51
350.00	12.05	12.29	12.28	27.80	29.10	29.20	1.08	1.30	4.91	21.43
400.00	12.12	12.36	12.35	26.30	27.60	28.10	1.10	1.31	4.80	21.36
450.00	12.19	12.43	12.42	25.10	26.20	26.70	1.12	1.32	4.66	21.31
500.00	12.26	12.49	12.48	24.00	25.20	25.70	1.15	1.32	4.56	21.32
550.00	12.34	12.57	12.55	22.90	24.20	24.60	1.18	1.33	4.44	21.28
600.00	12.40	12.62	12.60	22.00	23.30	23.70	1.21	1.34	4.34	21.24
650.00	12.49	12.70	12.68	21.10	22.30	22.80	1.25	1.35	4.22	21.19
700.00	12.56	12.77	12.76	20.10	21.50	21.80	1.29	1.37	4.13	21.14
750.00	12.66	12.85	12.83	19.20	20.50	21.00	1.33	1.38	4.05	21.14
800.00	12.60	12.80	12.79	18.60	20.10	20.60	1.37	1.39	3.97	21.12
850.00	12.79	12.99	12.98	17.60	19.00	19.60	1.42	1.40	3.90	21.05
900.00	12.62	12.81	12.79	17.30	18.70	19.30	1.47	1.42	3.82	21.11
950.00	12.72	12.91	12.89	16.50	17.90	18.60	1.52	1.43	3.75	21.05
1000.00	12.71	12.88	12.86	15.90	17.30	17.90	1.58	1.45	3.64	21.06



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